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10/730,110	12/09/2003	Takeshi Morikawa	032567-020	5434
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MILLA, MARK R				
ART UNIT		PAPER NUMBER		
2625				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/730,110

Applicant(s)

MORIKAWA ET AL.

Examiner

Mark R. Milia

Art Unit

2625

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,8,9,11,13,14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,8,9,11,13,14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 1/30/09 and has been entered and made of record. Currently, claims 1, 3-4, 6, 8-9, 11, 13-14, and 16 are pending.

Response to Arguments

2. Applicant's arguments filed 1/30/09 have been fully considered but they are not persuasive.

Applicant asserts that Salgado (US 6,504,621) and Mishima (JP 11-041429) fail to disclose or suggest controlling execution of an external job and a scanning job such that the controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job **in parallel** when it is discriminated that the activation instructions of the scanning job is made by said operation device, as recited in claim 1. The examiner respectfully disagrees as the combination of Salgado and Mishima discloses the above features. Particularly, Salgado states that a compressor **62** is coupled with a scanner (IIT) **18** and a decompressor **64** is coupled with a printer (IOT) **20** (column 8 lines 45-49). Salgado further states that depending on the resource to be used, i.e. scanner, printer, fax, jobs are placed in different queues, each being associated with a different resource (column

10 lines 53-57). Thus, a scan job and a net print job can be performed simultaneously, or in parallel, because the two jobs do not use the same system resource. To explain further, the scan job would utilize the compressor **62** and the scanner **18** and the net print job would utilize the decompressor **64** and the printer **20**. Salgado discloses using job priority when two or more jobs need to use the same system resource (column 16 line 61-column 17 line 6). Although Mishima discloses the use of a plurality of compression/elongation processing sections a single job, the job may contain multiple pages if the job is a copy job then two processing sections are used for compression and two for elongation. It would have been obvious to one of ordinary skill in the art to incorporate the idea of a plurality of compression/elongation processing sections that are used depending on the mode and number of jobs to be executed to increase the throughput of jobs waiting in a queue and thereby increase the speed of the overall system. For example, it would have been obvious to alter Salgado, taking into consideration the teachings of Mishima, to have a plurality of compressors/decompressors that perform compression or decompression based on the number of scan and net print jobs received to process all the jobs in a timely manner.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 3-4, 6, 8-9, 11, 13-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,504,621 to Salgado in view of Japanese Patent Document No. 11-041429 to Mishima as cited in the Information Disclosure Statement dated 10/28/05. Reference will be made to a machine translation that was furnished with a previous Office Action.

Regarding claim 1, Salgado discloses a data processing apparatus, comprising: an image reader for reading an original (see Fig. 1 and column 6 lines 6-12), a receiver capable of receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module **14**, such a job may originate from a host device), a print device for printing data of the external job received by said receiver (see Fig. 1 and column 6 lines 17-21), one or a plurality of compressing/expanding devices for compressing the image data of the scanning job or the data of the external job and expanding the compressed data (see column 8 lines 45-49), an operation device for instructing an activation of the scanning job in accordance with an operation of a user (see column 6 lines 6-7, and column 10 line 45-column 11 line 26, VCM **16** coordinates the operation of the scanner and printer based on a Key Operation/System Administrator, KO/SA algorithm), and a controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job is made when the data of the external job is being processed, and controls execution of the external job and the scanning job depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line

6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-53, column 15 lines 64-67, column 16 lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority), and wherein said controller makes said one or plurality of compressing/expanding devices execute the processing of the scanning job after a completion of the processing of the external job when it is discriminated that the activation instruction of the scanning job is made from an outside (see column 6 lines 53-63, column 8 lines 45-49, column 10 lines 53-57, column 16 line 61-column 17 line 6, and column 17 lines 22-41, a compressor **62** is coupled with a scanner (IIT) **18** and a decompressor **64** is coupled with a printer (IOT) **20**. Salgado further states that depending on the resource to be used, i.e. scanner, printer, fax, jobs are placed in different queues, each being associated with a different resource. Thus, a scan job and a net print job can be performed simultaneously, or in parallel, because the two jobs do not use the same system resource. To explain further, the scan job would utilize the compressor **62** and the scanner **18** and the net print job would utilize the decompressor **64** and the printer **20**).

Salgado does not disclose expressly a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside, a

controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said one or a plurality of compressing/expanding devices is made when the data of the external job is being compressed or expanded by said one or a plurality of compressing/expanding devices, and controls execution of the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on the discrimination result and wherein said controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device.

Mishima discloses a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside (see paragraph 18), a plurality of compressing/expanding devices for compressing the image data of the scanning job or the data of the external job and expanding the compressed data (see paragraphs 2, 7-9, 11-19, 35-36, and 45-46), and a controller that discriminates whether an activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said one or a plurality of compressing/expanding devices is made when the data of the external job is being compressed or expanded by said one or a plurality of compressing/expanding devices, and controls execution of the external job and the scanning job by said one or a plurality of compressing/expanding devices depending on

the discrimination result, and wherein said controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device (see paragraphs 11, 15, and 35-36, reference discloses a copy mode, which is made up of a scanning and printing being performed in parallel, in which two of the four compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation).

Regarding claim 6, Salgado discloses a data processing method, comprising the steps of: reading an original by an image reader (see Fig. 1 and column 6 lines 6-12), receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module 14, such a job may originate from a host device), printing received data of the external job (see Fig. 1 and column 6 lines 17-21), and discriminating whether an activation instruction of the scanning job is made by an operation device of its apparatus or from an outside when a request for processing data of the scanning job by one or a plurality of compressing/expanding devices when the data of the external job is currently being compressed or expanded by one or a plurality of compressing/expanding devices, and controls the execution of the external job and that of the scanning job by one or plurality of compressing/expanding devices depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line 6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-53, column 15 lines 64-67, column 16

lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority), and wherein said one or plurality of compressing/expanding devices execute the processing of the scanning job after a completion of the processing of the external job when it is discriminated that the activation instruction of the scanning job is made from an outside (see column 6 lines 53-63, column 8 lines 45-49, column 10 lines 53-57, column 16 line 61-column 17 line 6, and column 17 lines 22-41, a compressor **62** is coupled with a scanner (IIT) **18** and a decompressor **64** is coupled with a printer (IOT) **20**. Salgado further states that depending on the resource to be used, i.e. scanner, printer, fax, jobs are placed in different queues, each being associated with a different resource. Thus, a scan job and a net print job can be performed simultaneously, or in parallel, because the two jobs do not use the same system resource. To explain further, the scan job would utilize the compressor **62** and the scanner **18** and the net print job would utilize the decompressor **64** and the printer **20**).

Salgado does not disclose expressly transmitting image data of the original read by the image reader to an outside as a scanning job, discriminating whether an activation instruction of the scanning job is made by an operation device or from an outside when a request for processing data of the scanning job by one or a plurality of

compressing/expanding devices when the data of the external job is currently being compressed or expanded by one or a plurality of compressing/expanding devices, and controls execution of the external job and that of the scanning job by one or a plurality of compressing/expanding devices depending on the discrimination result and wherein said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device.

Mishima discloses transmitting image data of the original read by the image reader to an outside as a scanning job (see paragraph 18), a plurality of compressing/expanding devices for compressing the image data and expanding the compressed data (see paragraphs 2, 7-9, 11-19, 35-36, and 45-46), discriminating whether an activation instruction of the scanning job is made by an operation device or from an outside when a request for processing data of the scanning job by one or a plurality of compressing/expanding devices when the data of the external job is currently being compressed or expanded by one or a plurality of compressing/expanding devices, and controls execution of the external job and that of the scanning job by one or a plurality of compressing/expanding devices depending on the discrimination result, and wherein said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device (see paragraphs 11, 15, and 35-36, reference discloses a copy mode, which is made up of a scanning and printing being performed in parallel, in which two of the four

compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation).

Regarding claim 11, Salgado discloses a data processing apparatus, comprising: an image reader for reading an original (see Fig. 1 and column 6 lines 6-12), a receiver capable of receiving an external job transmitted from an outside (see Figs. 1, 2, and 6-10 and column 6 lines 39-50, image input terminal IIT receives jobs via a network service module **14**, such a job may originate from a host device), a compressing/expanding device for compressing data and expanding the compressed data (see column 8 lines 45-49), an operation device for instructing an activation of a scanning job in accordance with an operation of a user (see column 6 lines 6-7, and column 10 line 45-column 11 line 26, VCM **16** coordinates the operation of the scanner and printer based on a Key Operation/System Administrator, KO/SA algorithm), and a controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is made when data of the external job is currently being compressed or expanded by said compressing/expanding device, and controls execution of the external job and that of the scanning job by said compressing/expanding device depending on the discrimination result (see Figs. 8-10, column 10 line 45-column 11 line 6, column 11 lines 16-20, 29-31, and 40-42, column 13 lines 54-60, column 14 lines 47-53, column 15 lines 64-67, column 16 lines 6-16 and 50-51, column 16 line 61-column 17 line 6, and column 17 lines 22-41, controller **44** in conjunction with VCM **16** and the KO/SA

algorithm determine priority of jobs to be executed based of factors such as job type and marking resource, therefore if a job resource is being used by a job and another job is received that will utilize the same resource a determination is made based on preset rules to determine which job is to be processed, based on such criteria as job type priority and marking resource priority) and wherein said controller makes said one or plurality of compressing/expanding devices execute the processing of the scanning job after a completion of the processing of the external job when it is discriminated that the activation instruction of the scanning job is made from an outside (see column 6 lines 53-63, column 8 lines 45-49, column 10 lines 53-57, column 16 line 61-column 17 line 6, and column 17 lines 22-41, a compressor **62** is coupled with a scanner (IIT) **18** and a decompressor **64** is coupled with a printer (IOT) **20**. Salgado further states that depending on the resource to be used, i.e. scanner, printer, fax, jobs are placed in different queues, each being associated with a different resource. Thus, a scan job and a net print job can be performed simultaneously, or in parallel, because the two jobs do not use the same system resource. To explain further, the scan job would utilize the compressor **62** and the scanner **18** and the net print job would utilize the decompressor **64** and the printer **20**).

Salgado does not disclose expressly a transmitter capable of transmitting image data of the original read by said image reader as a scanning job to an outside, a controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is

made when the data of the external job is currently being compressed or expanded by said compressing/expanding device, and controls execution of the external job and the scanning job by said compressing/expanding device depending on the discrimination result and wherein said controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device.

Mishima discloses a transmitter capable of transmitting an image data of the original read by said image reader as a scanning job to an outside (see paragraph 18), a compressing/expanding device for compressing data and expanding the compressed data (see paragraphs 2, 7-9, 11-19, 35-36, and 45-46), and a controller that discriminates whether the activation instruction of the scanning job is made by said operation device or from an outside in cases where a request for processing the image data of the scanning job by said compressing/expanding device is made when data of the external job is currently being compressed or expanded by said compressing/expanding device, and controls execution of the external job and that of the scanning job by said compressing/expanding device depending on the discrimination result and wherein said controller makes said one or plurality of compressing/expanding devices execute processing of the external job and that of the scanning job in parallel when it is discriminated that the activation instruction of the scanning job is made by said operation device (see paragraphs 11, 15, and 35-36, reference discloses a copy mode, which is made up of a scanning and printing being

performed in parallel, in which two of the four compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation).

KSR analysis – Applying a Known Technique to a Known Device (Method, or Product) Ready for Improvement to Yield Predictable Results

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the use of plural compressing/expanding devices to process image data in parallel and adjust image data routing to the compressing/expanding devices depending on the type of image process being performed, as described by Mishima, with the system of Salgado. Salgado discloses a system that assigns priority to jobs based on where they originate, job type, or available system resources. Salgado also acknowledges that compression/decompression of image data is necessary in the processing of image data. Mishima discloses a system for performing compression/elongation including four compression/elongation processing sections. Mishima discloses three modes in which the system executes, (image input mode, copy mode, and printing mode). In image input mode, which performs only reading of the image data with the image reader section (scanner), all four compression/elongation processing sections are used for compression. In copy mode, two of the four compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation. In print mode, all four compression/elongation processing sections are used for elongation. Specifically taking the case of a copy mode into consideration, a

copy mode is made up of two parts, scanning and printing, and therefore two separated processes are occurring in parallel and the compression/elongation processing sections are utilized to optimize processing by using two of the four compression/elongation processing sections are used for compression and the other two compression/elongation processing sections are used for elongation. Therefore, based on the source of the image data and the type of processing, execution of the compression/expanding device is controlled appropriately. It would have been obvious to one of ordinary skill in the art that in executing the invention set forth by Salgado that adjustments to the manner in which the compressing/decompressing devices operate, such as by compressing/decompressing an external job and a scanning job in parallel, are needed to successfully perform the interruption processing of image data, such as walk-up jobs like scanning/copying. Mishima presents a method for such compression/decompression adjustments based on the image processing being performed.

Therefore, it would have been obvious to combine Mishima with Salgado to obtain the invention as specified in claims 1, 6, and 11.

Regarding claims 3, 8, and 13, Mishima further discloses wherein said controller makes said one or plurality of compressing/expanding devices execute the processing of the external job and that of the scanning job in parallel by switching the processing of the external job and that of the scanning job in turn (see paragraphs 11, 15, and 35-36).

Regarding claims 4, 9, and 14, Mishima further discloses wherein said controller assigns at least one of said plurality of compressing/expanding devices to the processing of the external job and that of the scanning job, respectively, to thereby execute these processing in parallel (see paragraphs 11, 15, and 35-36).

Regarding claim 16, Salgado further discloses a print device for printing the data of the external job received by said receiver (see Fig. 1 and column 6 lines 17-21).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571)272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached at (571) 272-7437. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark R. Milia
Examiner
Art Unit 2625

/Mark R. Milia/
Examiner, Art Unit 2625

/David K Moore/
Supervisory Patent Examiner, Art Unit 2625